

Blackbird-Millington Corridor Conservation Area Plan

Rural Amenities & Ecological Services

Target Description

The Rural Amenities & Ecological Services target is a compilation of nested targets or values identified by the local community -- largely at spring 2004 workshops -- as key attributes for maintaining the quality of rural life in the Corridor. The nested values or targets included are:

- The Value of Open Space, which includes having privacy from neighbors, minimal traffic, light pollution, and commercial activity and having room for things like gardening and walking/training dogs without leashes.
- The Value of Nature, which includes having the sights and sounds of nature at home and a variety of wildlife habitats and natural areas nearby, for hunting, observing nature, kayaking, boating, fishing, hiking, biking, horseback riding, and camping.
- The Value of Community Connection, which includes: kids growing up playing outside; neighbors who are friendly and open; a connection to history and future generations; local support, infrastructure, and self-determination for farming; social activities that revolve around school events, church dinners, and local seafood restaurants; as well as a mix of people and landscapes, all of which provide a lack of stress and peaceful lifestyle.
- The Value of Clean Water and Air, which contributes to and is made possibly in part by all of the above.

In addition to these core values, the community also expressed tremendous concern about maintaining property rights, rights to farm, and access to hunting, fishing, and recreational areas, and about outside influence/control. These concerns formed the basis for taking a non-regulatory, incentive-based voluntary approach to developing the strategies presented herein, beginning on page 65.

Through public workshops, the community also contributed input on some of specific places important to preserve for their rural, natural, and scenic qualities:

- Blackbird State Forest and other forested land
- Farm fields and ponds
- Tidal Marshes of the Delaware River/Bay
- Blackbird Creek and Cypress Branch

Specific roadways that were identified as important for their scenic and rural qualities and views include: Route 9, Clayton-Delaney Road, Blackbird Landing Road, St. Andrews School Road, Union Church Road, Townsend-to-Golts roads, and Eagles Nest Landing Road. Some of these scenic views and places are shown in Map V.



Indicators of Healthy Rural Amenities and Ecological Services

In an effort to be consistent and to integrate community values into the 5-S planning process, community values were translated into key attributes and some simple indicators selected for those attributes, based on suggestions contributed by technical team members. Since many of these indicators employed 2000 U.S. Census data, the area used was based on the Census block area or Census block group area (described in the *Socio-Economic Profile* section the Technical Report *Introduction*). To be consistent across this target, the Census block area was used, even when Census data were not employed (so that figures *could* be examined in related to population.) Without any truly relevant data for determining what represents "poor", "fair", "good", and "very good" for these indicators, using these to assess target viability was not possible. Instead, it was assumed that the current state for these rural qualities was fair-to-good and current status of indicators was used as the benchmark to measure change over time. The results are presented in the next section much as results were presented in previous sections, but without indicator ratings and more as suggestions than findings.

Population per Acre of Public-Access Open Space: An Indicator of Access to Nature

Having access to nature at home and nearby was identified as an important component of the rural lifestyle enjoyed by Corridor residents. Acres of open space accessible to the public was selected as an indicator for this attribute based on the obvious relevance, as well as availability of GIS data for measuring these acres.

Census 2000 Block data were used as an estimation of Corridor population. (See *Socio-Economic Profile of the Corridor* section for a description of how block data were used to estimate Corridor demographics.) Corridor population based on 2000 Census blocks is: 7,049.

Acres of open space was calculated by summing the acreage of lands owned and managed by public agencies and open to the general public for recreation, hunting, etc.. Open space calculations were based on the 70,133-acre Census block area for consistency. Included were Millington Wildlife Management Area, the Blackbird State Forest, and DNREC Fish & Wildlife lands, as well as portions of Bombay Hook (part of the Census Block area, but not the Corridor study area.) Total acres open to public access (state/fed owned) is 13,457.

Based on these data, there are 0.52 people per acre of public access open space or almost 2 acres of public access open space per person. Map W shows open space and protected open space in the Census block area that Corresponds to the Corridor.

Population Density per Acre of Open Space: An Indicator of Open Space and Privacy

Open space and the privacy that it affords was one of the most highly valued attributes of life in the Corridor expressed by community members. To benefit from the privacy and other ecological services provided by open space, residents need not have direct access to those areas.

To measure this attribute, the density of people to open space was calculated using Census 2000 block data for population (7,049 - as previously described) and 2002 Land Use / Land Cover data to determine open space (anything not developed.) In the context of efforts to conserve open space, the degree to which open space is protected also has relevance and that data is available (also from 2002 LULC).

There is a total of 62,434.5 acres of undeveloped area in the Census block area corresponding to the Corridor, including 22,080 acres that is permanently protected via conservation ownership or easements. (It should be noted that at least part of Bombay Hook is included in the Census block area.) Dividing open space by population gives us a density of 0.1129 people per acre of open space, or almost 9 acres of total open space and 3 acres of protected open space per person. (See Map W for open space and protected open space in the Census block area corresponding to the Corridor.)

Long-Term Residency: An Indicator of Community Connection

Maintaining rural connections within the community was an important feature of Corridor life expressed by residents, one aspect of which is the balance of long-term residents to newcomers. Census 2000 does not include any data on residency for individual blocks, but there is some residency information provided for block groups.¹

Census block group data on the year that residents moved into their homes was used to estimate the percentage of long-term residents (20 years or more) in the Corridor. (See *Socio-Economic Profile of the Corridor* in the *Introduction* section for a description of how Census block group data was used to estimate Census demographics.) The total number of households that moved into their homes before 1980 was summed (1,135) and used along with total households in the Census block group area (4,681) to estimate that in 2000 almost one quarter (24%) of Corridor-area households had been in their homes for the 20 years or more prior. It is likely that at least some additional Corridor residents had lived in the Corridor during that time period, but changed homes.

Census 2000 block group samples also indicate that 84% of residents in 2000 had lived in the same county *since 1995* and 91% had lived in the same state *since 1995*. The overwhelming majority of 2000 residents were born in-state (62%), but those not born in state were mostly born in the south (88%). Of new residents (since 1995), most came from the northeast (63%) but many also came from the south (31%). These indicators could potentially be compared with similar future measurement to track the progress or regress of long-term residency in the Corridor into the future.

Acres in Agriculture: An Indicator of Agricultural Infrastructure

Agriculture and an infrastructure to support agriculture – including things like tractor dealerships, grain buyers, cooperative extension, etc. -- is another important attribute to Corridor residents. With the focus of Corridor planning efforts on land conservation and with data on land uses and coverage easily accessible, measuring agricultural infrastructure by the amount of land available for agriculture seemed

¹ See Appendix I for a Census Block data summary and Appendix II for Census Block Group summary tables; Census block group data only provides information on how long sampled residents lived in their *houses* and how many have lived in the county (or state) *since 1995*.

the most relevant for this planning effort. Taking into account the degree to which it is protected is a critical indicator of its long-term sustainability. However, it should be noted that to get a truly complete measure for agricultural support, there clearly are many other factors that would need to be taken into account.

Based on 2002 LULC, there are 29,709 acres in agricultural use in the Census 2000 block area and 24% of those acres are protected by conservation ownership or easements. Map W shows agricultural land and easements in the Census block area.

Acres Forested: An Indicator of Clean Air & Water

Clean air and water are important for residents and natural communities alike. Since impervious coverage and water chemistry are already being measured as indicators of water quality in other targets, a measure that contributed to both water and air quality was sought: forests. As discussed in the Natural Resource Values section, forests play an important role in increasing both air and water quality. The long term sustainability of forests as a pollution sink depends in part on the protection.

Based on 2002 LULC, there are 27,355 acres of forest cover in the Census block area, 7,691 (or 28%) of which are protected by conservation ownership or easements; however, some of these protected areas are in agricultural easements, which don't necessarily protect forests. Map Y shows forest cover in the Census block area corresponding to the Corridor.

Threats to Rural Amenities & Ecological Services

Stresses and sources of stress were evaluated differently for this target than for the ecologically-based targets – in part due to time constraints, and in part because the nature of attributes makes it difficult to apply a rigid ranking system to them. Instead, stresses and sources of stress were developed via a brainstorming and voting process undertaken by a multidisciplinary team as part of the first strategy development workshop. Stresses were discussed, then a long list of sources was brainstormed, and voting was used to narrow the list to the primary sources, and to rank them.

The relative importance or ranking for stresses was estimated by the TNC project manager based on relevance to the overall target, as perceived from community workshop and technical team input. Open space and the privacy it provides, and clean air and water are facets of the target that are especially impacted by stresses based on estimates of their severity and scope.

Rankings for sources of stress to Rural Amenities and Ecological Services were determined by the TNC project manager based on the number of votes each received by team members in the June 2004 strategy development workshop, then entered into the threats assessment using the manual override.² Figure 30

² In order to calculate overall threat to the target, the TNC threats assessment worksheet requires input of rankings for both the severity and scope of each stress' impact on key attributes, as well as rankings for each source of stress for its contribution and irreversibility. Sources of stress for this target were simply identified and ranked by team members (via voting) at the June strategies workshop, in order to include a variety of perspectives (including landowners). This was a different methodology than the workbook uses; but the worksheet could still be used to capture the results in a similar format to the other targets using the manual override.

(next page) shows the results, but it's important to note that this methodology likely led to higher rankings because of the manual override, and should not be evaluated relative to other target/stress rankings. Residential and commercial development, lack of understanding regarding the value of open space and ecological services provided by the Corridor, and road construction/upgrades were the top sources of stress to the Rural Amenities and Ecological Services provided by the Corridor.

Figure 30

Threats - Sources of Stress			open space/privacy	Access to nature	Clean air and water	Agricultural infrastructure	Threat to System Rank
Rural Amenities & Ecological Services			<i>High</i>	<i>Medium</i>	<i>High</i>	<i>Medium</i>	
1	Residential/commercial development	Contribution					High
		Irreversibility					
		Override	High	High	High	High	
		Source	High	High	High	High	
		Combined Rank	High	Medium	High	Medium	
2	Lack of understanding regarding the value of open space and ecological services	Contribution					High
		Irreversibility					
		Override	High	High	High	High	
		Source	High	High	High	High	
		Combined Rank	High	Medium	High	Medium	
3	Incompatible management and abuse of public access	Contribution					Medium
		Irreversibility					
		Override	Medium	Medium	Medium		
		Source	Medium	Medium	Medium	-	
		Combined Rank	Medium	Low	Medium	-	
4	Road construction/upgrades	Contribution					High
		Irreversibility					
		Override	High		High		
		Source	High	-	High	-	
		Combined Rank	High	-	High	-	
5	Fear and cost of regulation/protection	Contribution					Medium
		Irreversibility					
		Override	Medium	Medium	Medium		
		Source	Medium	Medium	Medium	-	
		Combined Rank	Medium	Low	Medium	-	
6	Lack of incentives/opportunities for new/better products or technology	Contribution					Medium
		Irreversibility					
		Override				High	
		Source	-	-	-	High	
		Combined Rank	-	-	-	Medium	